



# 2000 Water Quality Report

## Cayucos

### To our customers

*The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. We sincerely hope this report gives you the information you seek and have a right to know.*

### What is the source of my drinking water?

Your water comes from Whale Rock Reservoir and a groundwater well located adjacent to Cayucos on the east side of Highway One. Whale Rock Reservoir has a total capacity of 40,660 acre-feet and is managed by the City of San Luis Obispo. No swimming or other body contact sports are allowed on the reservoir in order to minimize viral contamination from human contact. Water from the reservoir is piped downstream to the Cayucos Water Treatment Plant (WTP) where it is filtered and chlorinated prior to distribution.

Treated water is distributed to the Cayucos Area Water Organization (CAWO) which consists of three water agencies, Paso Robles Beach Water Association (PRBWA), Morro Rock Mutual Water Company (MRMWC), and the County of San Luis Obispo (CSA-10A). These three agencies have a combined total entitlement of 582 acre-feet per year of Whale Rock Reservoir water and groundwater.

#### 2000 Water Statistics

- **Cayucos Water Production**  
⇒ 134.9 million gallons
- **Water Delivered**  
⇒ 131.8 million gallons
- **Average Daily Demand**  
⇒ 0.36 million gallons



Photo by John Sutherland

The Whale Rock Reservoir watershed is approximately 20.3 square miles in size and like most watersheds is susceptible to the following **potential** sources of contamination: wastewater, animal grazing, recreational activities, unauthorized activities, use of pesticides/herbicides, geologic formations, and hazardous materials spills. The watershed is well managed and these potential sources of contamination are minimized. The update for the Whale Rock Watershed Sanitary Survey will be completed sometime in 2001 and can be viewed at the County Department of Public Works office in San Luis Obispo or the Cayucos Water Treatment Plant.

### How is the water system operated?

The Cayucos water system is assigned one full-time water treatment operator. All operators who work for the County are certified by the California Department of Health Services (DHS). They are knowledgeable professionals dedicated to maintaining an excellent water system and providing you with the best quality water possible.

### Where is the water tested?

Water sampling and analyses are performed by the San Luis Obispo County Water Quality Laboratory. The lab is certi-

fied by the DHS as an environmental testing laboratory for bacteriological and chemical analyses. Federal and State requirements dictate that all regulatory analyses be performed by certified labs following approved procedures.

### Where can the community participate in decisions regarding water quality?

The San Luis Obispo County Board of Supervisors meets every Tuesday (except the 5<sup>th</sup> Tuesday in a month) in the board chambers located in the Government Center Annex (1050 Monterey Street, San Luis Obispo). The Board will hold budget hearings during the month of June 2001. Interested persons should check the Board's agendas for specific dates. Agendas for all Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the Board of Supervisors internet web site at <http://www.slonet.org/vv/ipslocac/agendas.html>.

The Cayucos Citizens Advisory Committee meets the first Wednesday of each month at the Cayucos Veterans Hall at 7:30 pm. The Cayucos Area Water Organization meets the first Monday of each month at the Cayucos Fire Station at 1:30 pm. Information on meeting agendas are published in the newspaper or can be obtained from the County of San Luis Obispo Department of Public Works.

**Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.**

**TERMS USED IN THIS REPORT:**

**Maximum Contaminant Level Goal (MCLG) and Public Health Goal (PHG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the Federal Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Primary Drinking Water Standards (PDWS)** – MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS)** – MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Regulatory Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

**NS (No Standard):** Contaminant for which there is no established MCL.

**ND (Not Detected):** Contaminant is not detectable at testing limit.

**pCi/L:** picoCuries per liter (a measure of radiation)

**ppm:** parts per million, or milligrams per liter (mg/L)

**ppb:** parts per billion, or micrograms per liter (µg/L)

**NTU:** Nephelometric Turbidity Unit

**TON:** Threshold Odor Number

**LI:** Langelier Index; Noncorrosive = Any positive value, Corrosive = Any negative value



The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants* which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (Department) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.



Tables 1,2,3,4, and 5 list all of the drinking water contaminants that were detected from January 2000 through December 2000, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

**Table 1 - Treatment of surface water sources**

<p>Turbidity Performance Standard - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.</p> <p>Turbidity of filtered water must:</p> <ol style="list-style-type: none"> <li>1. Be less than or equal to 0.5 NTU in 95% of measurements in a month.</li> <li>2. Not exceed 1.0 NTU for more than eight consecutive hours.</li> <li>3. Not exceed 5 NTU at any time.</li> </ol>	<b>Treatment Technique for Cayucos Treatment Plant</b>
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	100%
Highest single turbidity measurement during the year.	0.24 NTU
The number of violations of any surface water treatment requirement.	0



Table 2 - Detection of Contaminants with a <u>Pri-</u> <u>mary</u> Drinking Water Standard			Cayucos		
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Potential Source of Contamination
Aluminum (ppb)	1000	-----	ND—600	270	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppb)	1000	(2000)	ND—130	65	Runoff from orchards; natural deposits; glass & electronics production wastes
Fluoride (ppb)	2000	1000	290 —360	320	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND—2.50	1.3	Erosion of natural deposits
Nitrate as NO <sub>3</sub> (ppm)	45	45	ND—3.7	1.9	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	50	(50)	2.6—6.6	4.6	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

Table 3 - Lead and Copper		Cayucos Homes					
Contaminant (reporting units)	AL	MCLG	Number of Samples Collected	Sample Date	90th Percentile Level Detected	Number of Sites Found Above the AL	Potential Source of Contamination
Lead (ppb)	15	2	10	September 1999	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	170	10	September 1999	700	0	Internal corrosion of household water plumbing systems

Table 4 - Detection of Contaminants with a <u>Secondary</u> Drinking Water Standard		Cayucos		
Contaminant (reporting units)	MCL	Range	Average	Potential Source of Contamination
Aluminum (ppb)	200	ND—600	270*	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (ppm)	500	28—57	42	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	1—2	1	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive	0.3-0.6	0.4	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor - Threshold	3	1.0-1.4	1.2	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600	531—790	660	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	66—70	68	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	0.07—0.15	0.1	Soil Runoff
Total Dissolved Solids (ppm)	1000	480—560	520	Runoff/leaching from natural deposits

Table 5 - Detection of Contaminants without a Drinking Water Standard		Cayucos WTP		
Contaminant (reporting units)		Range	Average	Potential Source of Contamination
Alkalinity as CaCO <sub>3</sub> (ppm)		210—360	280	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)		41—66	54	Runoff/leaching from natural deposits; seawater influence

\* Aluminum was found at levels that exceed the secondary MCL of 200 ppb; the aluminum MCL was set to protect you against unpleasant aesthetic affects such as color, taste, and odor. The high aluminum levels are due to residue from the water treatment process. Since violating this MCL does not pose a risk to public health, the State allows the affected community to decide whether or not to treat to remove it.



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Table 5 - Detection of Contaminants <u>without</u> a Drinking Water Standard	Cayucos WTP		
Contaminant (reporting units)	Range	Average	Potential Source of Contamination
Hardness (ppm)	230—370	300	Generally found in ground and surface water
Magnesium (ppm)	30—51	40	Runoff/leaching from natural deposits; seawater influence
pH	7.43—8.12	7.78	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	29—50	40	Runoff/leaching from natural deposits; seawater influence
Total Haloacetic Acids (ppb) (May 2000 through February 2001)	2.5-47.4	21.7	By-product of drinking water chlorination
Total Trihalomethanes (ppb) (May 2000 through February 2001)	48.7-93.1	66.4	By-product of drinking water chlorination

### Additional General Information on Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additionally, the Office of Ground Water and Drinking Water at EPA maintains a website with useful information on drinking water. The address is <http://www.epa.gov/OGWDW/>. Additional information can be obtained by accessing the American Water Works Association's website at <http://www.awwa.org> or by calling Percy Garcia, Water Quality Manager, at 781-5111, John Beaton, Senior Water Systems Chemist, at 781-5109, or Faith Zenker, Water Systems Chemist, at 781-1576 at the County Water Quality Laboratory.



### Water Conservation

The County of San Luis Obispo would like to remind all water users of the importance of water conservation. There are many ways to conserve water and a few examples are:

- Grow plants that do not need a lot of water, such as native plants
- Fix leaky pipes, interior faucets or hose bibs
- Install low-flow toilets & shower heads
- Water gardens and wash cars in the evening, rather than during the day when water will evaporate
- Sweep your pavement rather than hose it down

### Anticipated Projects for 2001 through 2002

- Replace the water line between the Water Treatment Plant and the CSA 10A distribution system
- Repair and paint CSA 10A distribution tank
- Backwash recovery system improvements